

THAT WHICH IS CLAIMED:

1. A method for making a reaction injection member having a desired contour, the method comprising:
 - 5 providing a mold defining a cavity having a predetermined contour corresponding to the desired contour of the member; and
 - injecting a foam material including a blowing agent into the cavity such that the foam material is disposed against the predetermined contour and expands to form the member having an average density of less than about 6 pounds per cubic foot.
- 10 2. A method according to Claim 1 wherein said injecting step comprises forming the member with a maximum density of less than about 10 pounds per cubic foot.
3. A method according to Claim 1 wherein said injecting step comprises forming
- 15 the member with a maximum density of less than about 6 pounds per cubic foot.
4. A method according to Claim 1 wherein said injecting step comprises injecting the foam material with a free rise density of less than about 3 pounds per cubic foot.
- 20 5. A method according to Claim 1 wherein said injecting step comprises injecting the foam material including between about 3.5% and 12.5% by weight of the blowing agent.
- 25 6. A method according to Claim 1 wherein said injecting step comprises injecting the foam material including polyol and between about 50% and 65% by weight isocyanate to form polyurethane foam.
7. A method according to Claim 1 wherein said injecting step further comprises
- 30 injecting a fire resistant additive such that the member is fire resistant.
8. A method according to Claim 1 wherein said injecting step comprises injecting the foam material including at least about 1% by weight phosphoric acid.

9. A method according to Claim 1 further comprising disposing at least one elongate support member in the cavity such that the foam forms at least partially around the support member.
- 5 10. A method according to Claim 9 wherein said disposing step comprises disposing at least one support member formed of at least one of the group consisting of reinforced thermoplastic laminate, polyvinyl fluoride, and fiberglass.
11. A method according to Claim 9 wherein said disposing step comprises
10 disposing the at least one support member against the mold such that the support member defines a surface of the member.
12. A method according to Claim 9 wherein said disposing step comprises first and second support members against the mold in an opposed configuration such that
15 the first and second support members define opposite surfaces of the member.
13. A method according to Claim 1 further comprising disposing at least one fastener device in the cavity before said injecting step such that the member is formed with the at least one fastener device at least partially disposed within the member.
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14. A method according to Claim 1 further comprising forming at least one aperture in the member and disposing a fastener device at least partially in the aperture.
- 25 15. A method according to Claim 1 further comprising disposing a feature member in the cavity before said injecting step such that the member is formed with the feature member at least partially disposed within the member, the feature member comprising at least one of the group consisting of a hinge, a window, and a window frame.
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16. A method according to Claim 1 wherein the mold cavity corresponds to the shape of a stowage bin for an aircraft, the stowage bin defining an elongate portion having first and second sides and extending between first and second end portions, the elongate and end portions defining a stowage space therein.

17. A method according to Claim 1 wherein the mold cavity corresponds to the shape of an interior panel for an aircraft, the panel defining first and second opposite elongate surfaces.
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18. A reaction injection molded member, the member comprising:
expanded polyurethane foam material having first and second opposite surfaces defining a desired contour, the foam material including polyol and between about 50% and 65% by weight isocyanate and having an average density of less than
10 about 6 pounds per cubic foot.
19. A reaction injection molded member according to Claim 18 wherein the foam material has a maximum density of less than about 10 pounds per cubic foot.
- 15 20. A reaction injection molded member according to Claim 18 wherein the foam material has a maximum density of less than about 6 pounds per cubic foot.
21. A reaction injection molded member according to Claim 18 wherein the foam material has a free rise density of less than about 3 pounds per cubic foot
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22. A reaction injection molded member according to Claim 18 wherein the foam material includes between about 3.5% and 12.5% by weight of a blowing agent.
23. A reaction injection molded member according to Claim 18 wherein the foam
25 material includes a fire resistant additive such that the member is fire resistant.
24. A reaction injection molded member according to Claim 23 wherein the foam material includes at least about 1% phosphoric acid by weight of the foam.
- 30 25. A reaction injection molded member according to Claim 18 further comprising at least one support member extending longitudinally in member and at least partially enclosed by the foam.

26. A reaction injection molded member according to Claim 25 wherein the at least one support member comprises a member formed of at least one of the group consisting of reinforced thermoplastic laminate, polyvinyl fluoride, and fiberglass.
- 5 27. A reaction injection molded member according to Claim 25 wherein at least one support member defines a surface of the member.
28. A reaction injection molded member according to Claim 27 wherein the member includes first and second support members defining opposite surfaces of the
10 member.
29. A reaction injection molded member according to Claim 18 further comprising at least one fastener device at least partially disposed within the member.
- 15 30. A reaction injection molded member according to Claim 18 further comprising at least one feature member at least partially disposed within the reaction injection molded member, the feature member comprising at least one of the group consisting of a hinge, a window, and a window frame.
- 20 31. A reaction injection molded member according to Claim 18 wherein the member is a stowage bin for an aircraft, the stowage bin defining an elongate portion having first and second sides and extending between first and second end portions, the elongate and end portions defining a stowage space therein.
- 25 32. A reaction injection molded member according to Claim 18 wherein the member is an interior panel for an aircraft, the panel defining first and second opposite elongate surfaces.
- 30 33. A reaction injection molded interior member for an aircraft, the member comprising:
expanded polyurethane foam material having first and second opposite surfaces defining a desired contour, the foam material including polyol, between about 50% and 65% by weight isocyanate, and between about 3.5% and 12.5% by weight of a blowing agent, the foam material having a free rise density of less than

about 3 pounds per cubic foot, an average density of less than about 6 pounds per cubic foot, and a maximum density of less than about 10 pounds per cubic foot.

34. A reaction injection molded member according to Claim 33 wherein the foam
5 material has a maximum density of less than about 6 pounds per cubic foot.

35. A reaction injection molded member according to Claim 33 wherein the foam material includes a fire resistant additive such that the member is fire resistant.

10 36. A reaction injection molded member according to Claim 35 wherein the foam material includes at least about 1% phosphoric acid by weight of the foam.

37. A reaction injection molded member according to Claim 33 further comprising at least one support member extending longitudinally in member and at least partially
15 enclosed by the foam.

38. A reaction injection molded member according to Claim 37 wherein the at least one support member comprises a member formed of at least one of the group consisting of reinforced thermoplastic laminate, polyvinyl fluoride, and fiberglass.
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39. A reaction injection molded member according to Claim 37 wherein at least one support member defines a surface of the member.

40. A reaction injection molded member according to Claim 39 wherein the
25 member includes first and second support members defining opposite surfaces of the member.

41. A reaction injection molded member according to Claim 33 further comprising at least one fastener device at least partially disposed within the member.
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42. A reaction injection molded member according to Claim 33 wherein further comprising at least one feature member at least partially disposed within the reaction injection molded member, the feature member comprising at least one of the group consisting of a hinge, a window, and a window frame.

43. A reaction injection molded member according to Claim 33 wherein the member is a stowage bin for an aircraft, the stowage bin defining an elongate portion having first and second sides and extending between first and second end portions, the
5 elongate and end portions defining a stowage space therein.

44. A reaction injection molded member according to Claim 33 wherein the member is an interior panel for an aircraft, the panel defining first and second opposite elongate surfaces.
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